

WHAT IS CLAIMED IS:

1. A system for acoustically stimulating the brain, comprising:
 - a signal generator capable of generating at least two acoustical signals each having a frequency of about 0.1 hertz to about 4,000 hertz;
 - a user interface communicating with the signal generator and providing a user the capability to adjust at least the frequency and volume of at least one of the two acoustical signals;
 - first and second ear pieces adapted to reside about the user's human ears and each comprising a transducer for converting the acoustical signal in to acoustical energy for stimulating the brain into a desired state of activity.
2. The system of claim 1 further comprising the ability to adjust a beat of at least one of the acoustical signals from about 0.5 hertz to about 1,000 hertz.
3. The system of claim 2, wherein the beat of the at least one acoustical signal can be adjusted from about 1 hertz to about 10 hertz.
4. The system of claim 1, wherein at least one of the acoustical signals is a simple sine wave and the other is a composite sine wave having frequency overtones.
5. The system of claim 1, wherein the acoustical signals are selected from the group consisting of: a simple sine wave, a composite sine wave, a compound sine wave and any combination of the foregoing.
6. The system of claim 1, wherein the system is programmable.
7. The system of claim 6, wherein the system can be programmed by wired or wireless data transmission.
8. The system of claim 7, wherein the system can be programmed to generate specific ranges of brain activity.

9. The system of claim 8, wherein the generated range of brain activity benefits or ameliorates a condition selected from the group consisting of: attention deficit disorder, attention maintenance, eating disorder, weight wellness, depression, anxiety, chronic pain, acute pain, addiction, sleep disorder, iatrogenic pain, Parkinson's, Alzheimer's, hypertension, diabetes, sexual dysfunction, stress and any combination of the foregoing.
10. The system of claim 1, further comprising a resettable lock out feature that allows the user a predetermined number of uses or hours of usage before the user is locked out of further use.
11. The system of claim 10, wherein the lock out feature can be reset by wired or wireless data transmission.
12. An acoustical stimulation system, comprising:
 - a signal generator capable of generating at least two acoustical signals each having a frequency of about 0.1 hertz to about 4,000 hertz;
 - a user interface communicating with the signal generator and providing a user the capability to adjust at least the frequency, volume and beat of at least one of the two acoustical signals such that a frequency differential may be created between the at least two acoustical signals;
 - first and second ear pieces adapted to reside about the user's human ears and each comprising a transducer for converting the at least two acoustical signals into acoustical energy for stimulating, along with the frequency differential, the brain into a desired state of activity.
13. The system of claim 12 wherein the beat of the acoustical signals can be adjusted from about 0.5 hertz to about 1,000 hertz.
14. The system of claim 13, wherein the beat of the acoustical signals can be adjusted from about 1 hertz to about 10 hertz.

15. The system of claim 12, wherein the at least one of the acoustical signals is a simple sine wave and another is a composite sine wave having frequency overtones.
16. The system of claim 12, wherein the acoustical signals are selected from the group consisting of: a simple sine wave, a composite sine wave, a compound sine wave and any combination of the foregoing.
17. The system of claim 12, wherein the system is programmable.
18. The system of claim 17, wherein the system can be programmed by wired or wireless data transmission.
19. The system of claim 17, wherein the system can be programmed to generate specific ranges of brain activity.
20. The system of claim 19, wherein the generated range of brain activity benefits or ameliorates a condition selected from the group consisting of: attention deficit disorder, attention maintenance, eating disorder, weight wellness, depression, anxiety, chronic pain, acute pain, addiction, sleep disorder, iatrogenic pain, Parkinson's, Alzheimer's, hypertension, diabetes, sexual dysfunction, stress and any combination of the foregoing.
21. The system of claim 12, further comprising a resettable lock out feature that allows the user a predetermined number or hours of usage before the user is locked out of further use.
22. The system of claim 12, wherein the lock out feature can be reset by wired or wireless data transmission.
23. A method of stimulating the brain with acoustic energy, comprising:
providing a stimulation system comprising a signal generator and a user interface;

generating a primary acoustic signal having a set of parameters, including at least frequency and volume;

generating a secondary acoustic signal having a set of parameters, including at least frequency and volume, wherein at least one of the secondary signal parameters is different than its counterpart primary signal parameter;

converting the primary and secondary signals into sound waves;

supplying the sound waves converted from the primary signal to one ear and supplying the sound waves converted from the secondary signal to the other ear; and

interactively adjusting one or more of the parameters of the primary and/or secondary signals to create a desired brain state, which is based upon the differential between the at least one parameter of the primary and secondary signal.

24. The method of claim 23, further comprising,

providing the system with memory for storing software; and

loading into the system memory a program for controlling the system in a manner consistent with the desired brain state.

25. The method of claim 23, wherein the desired brain state is associated with benefiting or ameliorating a specific condition.

26. The method of claim 25, wherein the generated range of brain activity benefits or ameliorates a condition selected from the group consisting of: attention deficit disorder, attention maintenance, eating disorder, weight wellness, depression, anxiety, chronic

pain, acute pain, addiction, sleep disorder, iatrogenic pain, Parkinson's, Alzheimer's, hypertension, diabetes, sexual dysfunction, stress and any combination of the foregoing.

27. The method of claim 23, wherein the primary and/or secondary signals are selected from the group consisting of simple sine wave, composite sine wave, compound sine wave and any combination of the foregoing.